PENENTUAN UMUR SIMPAN SERBUK MINUMAN INSTAN RUMPUT GANDUM DENGAN METODE *ACCELARATED SHELF LIFE TEST*

Shelf Life Study Of Instan Beverage Powder of Wheatgrass By Accelarated Shelf Life Test Method

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ABSTRAK

Kandungan gizi yang tinggi dalam rumput gandum memiliki peluang untuk dimanfaatkan sebagai minuman kesehatan dengan memproses rumput gandum dalam bentuk minuman serbuk instan yang akan memperpanjang masa simpannya. Umur simpan perlu ditetapkan karena berkaitan dengan dengan mutu dan keamanan produk. Penelitian ini bertujuan untuk mengetahui umur simpan dengan metode *Accelarated Shelf Life Test* (ASLT) model Arrhenius produk serbuk minuman instan rumput gandum. Jenis penelitian yang digunakan adalah penelitian deskriptif. Penelitian dilakukan pada dua tahap yaitu pembuatan formula serbuk minuman instan rumput gandum dan analisis umur simpan. Ada tiga formula produk serbuk minuman instan rumput gandum. Formula I yaitu rumput gandum ditambahkan gula pasir 15% , Formula II yaitu rumput gandum ditambahkan gula pasir 20%, Formula III yaitu rumput gandum ditambahkan gula pasir 25%. Untuk analisis umur simpan ketiga formula disimpan pada suhu 25^{o}C, 40^{o}C dan 55^{o}C selama 14 hari untuk perhitungan total mikroba, kelarutan dan kadar air. Kadar air dipilih sebagai parameter kunci untuk penentuan umur simpan produk. Analisis data dilakukan dengan metode regresi linear mengikuti model Arrhenius. Berdasarkan hasil penelitian dapat disimpulkan bahwa umur simpan produk serbuk minuman instan rumput gandum pada suhu ruang Formula I selama 77 hari, Formula II selama 96 dan Formula III selama 166 hari.
Kata Kunci: Rumput gandum, serbuk minuman instan, umur simpan, metode ASLT, Arrhenius

ABSTRACT

High nutrient content in wheatgrass has a chance to be used as a health dbeverage with the processing of wheatgrass in instant powder beverage form that will extend the shelf life. Shelf life needs to be determined as it relates to the quality and safety of the products. This study aims to determine the shelf life of instant beverage powder products of wheat grass by Accelarated Shelf Life Test (ASLT) Method Arrhenius model. This type of research is a descriptive study. The study was conducted in two stages, the producing of instant beverage powder of wheatgrass and analysis of shelf life. There are three formulas of instant beverage powder products of wheatgrass. Formula I that wheatgrass with the addition of 15% sugar, Formula II that wheatgrass with the addition of 20% sugar, Formula III that wheatgrass with the addition of 25% sugar. For the analysis of a shelf life of three formulas are stored at a temperature of 25°C, 40ºC and 55°C for 14 days for the calculation of total microbes, solubility and water content. Water content chosen as key parameter for determining the shelf life of the product. Data analysis was performed by linear regression method following the model of Arrhenius. Based on the results of this study concluded that the shelf life of instant beverage powder products of wheatgrass at room temperature are Formula I for 77 days, Formula II for 96 days and Formula III for 166 days.
Keywords: Wheatgrass, instant beverage powder, shelf life, ASLT method, Arrhenius